(54) Title: SYSTEM AND METHOD FOR OPTIMIZATION OF VESSEL CENTERLINES
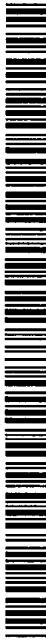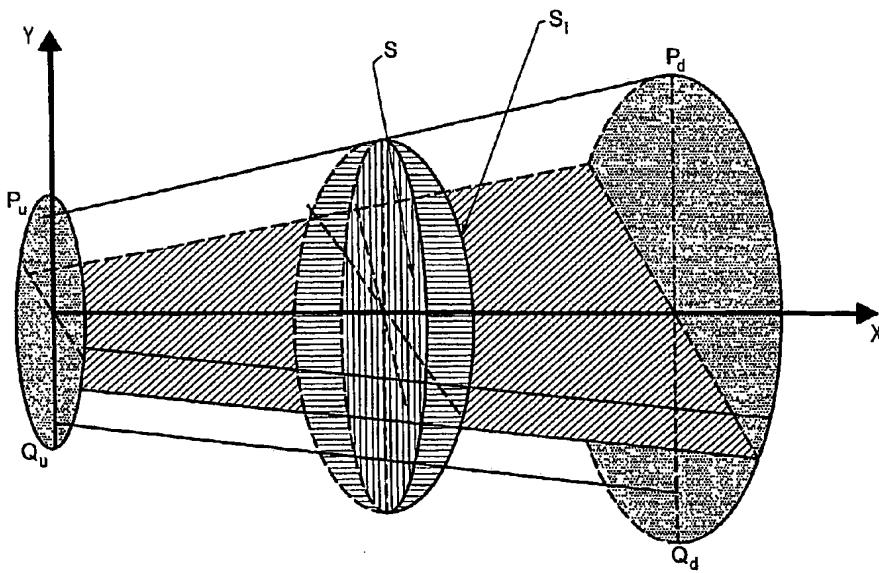
(57) Abstract: Methods are provided for optimizing a vessel centerline in a digital image. For instance, a method includes provid-
ing a digital image of a vessel wherein said image comprises a plurality of intensities corresponding to a domain of points in a D
-dimensional space, initializing a centerline comprising a plurality of points in the vessel (step 20), determining a cross section of the
vessel at each point in the centerline (step 21), evaluating a center point for each cross section of the vessel (step 22), and determining
a refined centerline from the center points of each cross section (step 23).